



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/769,821

02/03/2004

Shunpei Yamazaki

740756-2705

9517

22204

7590

05/20/2008

NIXON PEABODY, LLP

401 9TH STREET, NW

SUITE 900

WASHINGTON, DC 20004-2128

EXAMINER

LIN, JAMES

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

05/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/769,821	Applicant(s) YAMAZAKI, SHUNPEI	
	Examiner Jimmy Lin	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/23/05, 3/2/06, 5/9/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on 3/21/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (U.S. Publication No. 2001/0003601).

Ueda discloses a method of making an electroluminescent (EL) display [0086]. A conductive material is provided over an entire substrate. Etching gas is used to generate plasma in order to etch the conductive material into an electrode pattern. The plasma treatment can be performed at atmospheric pressure (i.e., 760 Torr) [0034]-[0043].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda '601 in view of Miyata (U.S. Publication No. 2001/0002331).

Ueda does not explicitly teach forming a resist mask over the conductive film. However, Ueda does suggest the use of a metal mask to shield the areas of the conductive film that is not to be removed. Accordingly, Miyata teaches that it was well known to form a resist mask on the substrate in order to allow a plasma etching process to etch only selected areas ([0052]; Fig. 1A). The teachings of Ueda and Miyata would have presented a recognition of equivalency in the prior art and would have presented strong evidence of obviousness in substituting one for the other in a process of shielding selected areas from being exposed to a plasma etching treatment. The substitution of equivalents requires no express suggestion. See MPEP 2144.06.II. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have formed a resist mask, as opposed to using a metal mask, on the conductive layer of Ueda with a reasonable expectation of success.

6. Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda '601 in view of Inoue (JP 07-024579, listed in the IDS filed 2/23/2005).

Ueda does not explicitly teach using a plurality of sets of electrodes for generating plasma. However, Ueda does teach that the conductive material is selectively patterned [0068]. Accordingly, Inoue teaches a method of generating plasma in restricted regions (abstract). The apparatus comprises of a plurality of plasma generating electrodes, which are moved in the X and Y directions such that an etching pattern can be formed (Fig. 1). Because Inoue teaches that such a method was operable for selectively plasma etching a substrate, it would have been obvious to one of ordinary skill in the art at the time of invention to have applied the plasma etching method of Inoue to the plasma etching of the conductive material of Ueda with a reasonable expectation of success.

Claims 7-8: Inoue teaches that the plasma treatment means can scan the substrate in the X and Y directions (Fig. 1).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda '601 in view of Miyata '331 as applied to claim 4 above, and further in view of Inoue '579 for substantially the same reasons as discussed immediately above.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda '601 in view of Nishi et al. (U.S. Publication No. 2001/0004190).

Ueda does not explicitly teach that the substrate can have a size of 1,000 x 1,200 mm² or more. However, Nishi teaches that it was well known to make EL displays larger than 40 inches in the diagonal direction [0206]. Such a teaching suggests that substrate diagonal sizes larger than 40 inches, including a size of 1,000 x 1,200 mm², were operable for EL displays. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used a substrate with a diagonal size larger than 40 inches, including the claimed range, in the method of making the EL device of Ueda with a reasonable expectation of success in order to form a display having a desired size.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda '601 in view of Miyata '331 as applied to claim 4 above, and further in view of Seki (JP 11-340129, listed in the IDS filed 2/23/2005).

Miyata does not explicitly teach that the resist mask is formed by use of liquid droplet jetting means. Miyata only teaches that the resist mask is formed using resist coating and lithographic processes [0051]. However, Seki teaches that forming resists using lithographic methods wastes 95% of the resist material and is time-consuming [0004]-[0005]. In order to solve this problem, Seki teaches that a resist material can be dissolved in a solvent and deposited onto a substrate via an ink jet method. This improved method can lower manufacturing costs (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have formed the resist mask of Miyata using an ink jet method, as opposed to a lithographic method, with a reasonable expectation of success. One would have been motivated to do so in order to have reduced manufacturing costs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is (571)272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

Art Unit: 1792

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jimmy Lin/
Examiner, Art Unit 1792

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit
1792